

C L A I M S

1. A composition to be used for the manufacture of mono- or multilayer films for food-wrap applications comprising from 5 to 40 wt% of a styrenic block copolymer, having a molecular structure according to the general formulae

5 S - EB - S (1) or (S - EB)_n X (2),

wherein each S independently is a polymer block of predominantly styrene and EB is a hydrogenated polymer block of predominantly butadiene, n is an integer equal to or greater than 2, and X is the residue of a coupling agent, having a poly(styrene) content of from 10 to 29 wt% and preferably from 17 to 24 wt%, having poly(styrene) blocks (S) of an apparent molecular weight in the range of from 6,000 to 9,000, having an apparent molecular weight of the complete block copolymer in the range of from 80,000 to 150,000 having an 1,2-addition degree (vinyl content) in the precursor of the poly(butadiene) block (EB) in the range of from 60 to 80% (mole/mole), wherein the block EB has a hydrogenation degree of at least 80% and preferably at least 90% and wherein diblock S-EB optionally occurs in a content of at most 20 mole% and preferably at most 10 mole%, a polyolefin in an amount of at least 40 wt% and optionally a resin which is compatible with the hydrogenated poly(butadiene) blocks in an amount of from 0 to 25 %wt, wherein all weight percentages are relative to the weight of the complete composition.

2. A composition according to claim 1, wherein the polyolefin is a random propylene copolymer with a flexural modulus smaller than 300 MPa (ASTM D-790).

3. A composition according to any one of claims 1 and 2, wherein the polyolefin is copolymer of propylene and ethylene, having a flexural modulus smaller than 300 MPa (ASTM-D-790).

5 4. Mono- or multilayer film comprising at least one layer based on a composition according to any one of claims 1 to 3.

5. A styrenic block copolymer, wherein

10 i. the poly(styrene) content (PSC) is from 17 to 24 wt%,
ii. the styrenic block copolymer has a molecular structure according to the general formulae

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$$S - EB - S \text{ (1) or } (S - EB)_n X \text{ (2)},$$
 wherein each S independently is a polymer block of styrene and EB is a hydrogenated polymer block of butadiene, n is an integer equal to or greater than 2, and X is the residue of a coupling agent,

iii. the apparent molecular weight of the poly(styrene) blocks (S) is in the range of from 7,500 to 8,500,

20 iv. the apparent molecular weight of the complete styrenic block copolymer is in the range of from 80,000 to 150,000,

v. the 1,2 addition degree (vinyl content) in the poly (butadiene) block (EB) precursor is in the range of from 60 to 80 (mole/mole),

25 vi. the block EB has a hydrogenation of at least 80% and preferably of at least 90%, and

vii. an optional diblock S-EB content of at most 20 mole% and preferably of at most 10 mole%, relative to the total block copolymer amount.

30 6. A styrenic block copolymer according to claim 5 wherein the hydrogenation degree of the EB block is at least 95%.

7. A styrenic block copolymer according to claim 5 wherein the 1,2-addition degree in the EB block precursor is in the range of from 65 to 75%.

5 8. A styrenic block copolymer according to any one of claims 5 to 7 wherein the apparent molecular weight of the complete styrenic block copolymer is in the range from 100,000 to 120.000.